

Response to Office Action Mailed March 31, 2009

Serial No. 10/595,056; Filed January 20, 2005

Inventors: Steffen

Group Art Unit: 1797

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In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An internal vibrator device, comprising:
 - an electric motor,
 - a vibrator housing,
 - an imbalance device situated in the vibrator housing and driven by the electric motor so as to be capable of rotation, and
 - a main switch for switching the electric motor on and off,
 - the electric motor being capable of being operated, in a normal operating state, with a rotational characteristic suitable for the compacting of liquid concrete, wherein
 - an operating state change device by which the internal vibrator device is able to be operated in a liberation operating state in which the rotational characteristic of the electric motor differs from the rotational characteristic in the normal operating state, in such a way that via the operating state change device the direction of rotation of the electric motor is capable of being reversed automatically at periodic time intervals.
2. (Previously Presented) An internal vibrator device according to Claim 1, wherein, via the operating state change device the direction of rotation of the electric motor is capable of being reversed in relation to the direction of rotation in the normal operating state.
3. (Previously Presented) An internal vibrator device according to Claim 1, wherein the operation of the electric motor is capable of being interrupted at periodic time intervals via of the operating state change device.

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4. (Previously Presented) An internal vibrator device according to Claim 6, wherein the time duration of the periodic time intervals is able to be fixedly predetermined, or is variable.

5. (Previously Presented) An internal vibrator device according to Claim 1, wherein the rotational speed of the electric motor is capable of being modified or is capable of being controlled by means of the operating state change device.

6. (Previously Presented) An internal vibrator device according to Claim 1, wherein the vibrator housing, the electric motor, and the imbalance device are combined to form a vibrator device, the vibrator device being capable of being made to pass through its natural frequency through a modification of the rotational speed of the electric motor.

7. (Currently Amended) Method for freeing a jammed internal vibrator device, in which an imbalance device in a vibrator housing is driven by an electric motor, and, in a normal operating state, the electric motor is operated with a rotational characteristic in order to compact liquid concrete, the method comprising:

| alternatively to operation in the normal operating state, automatically periodically
| operating the electric motor in a liberation operating state in which the rotational characteristic of
| the electric motor differs from the rotational characteristic in the normal operating state if when
| an operator activates the liberation operating state.

8. (Currently Amended) A method according to Claim 7~~Claim 11~~, wherein the rotational characteristic of the electric motor includes at least one of the following parameters: direction of rotation, rotational speed, temporal change of the rotational speed, and a temporal change of the direction of rotation.

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9. (Previously Presented) A method according to Claim 7, further comprising at least one of the following steps:

- reversing the direction of rotation of the electric motor,
- predetermining the direction of rotation of the electric motor,
- automatically changing the direction of rotation of the electric motor,
- reversing the direction of rotation of the electric motor at periodic time intervals,
- interrupting the direction of rotation of the electric motor at periodic time intervals, and
- modifying the rotational speed of the electric motor.

10. (Currently Amended) Method according to one of Claim Claims 7, wherein a vibrator device, comprising the electric motor, the vibrator housing, and the imbalance device, is made to pass through its resonant frequency through a modification of the rotational speed of the electric motor.

11-14. (Cancelled).

15. (New) An internal vibrator device according to Claim 1, further comprising an automatic operation switch that switches the operating state change device off and on.

16. (New) An internal vibrator device according to Claim 1, further comprising a period duration selection switch that sets the duration of the periodic time intervals.

17. (New) An internal vibrator device, comprising:

- an electric motor,
- a vibrator housing,

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- an imbalance device that is situated in the vibrator housing and that is driven to rotate by the electric motor,
- a main switch for switching the electric motor on and off, the electric motor normally operating in a normal operating state to drive the imbalance device with a rotational characteristic suitable for compacting liquid concrete,
- an operating state change device that is connected to the electric motor and that automatically reverses the direction of the electric motor at periodic time intervals to operate the internal vibrator device in a liberation operating state in which the rotational characteristic of the imbalance device differs from the rotational characteristic in the normal operating state; and
- an automatic operation switch that switches the operating state change device off and on.

18. (New) An internal vibrator device according to Claim 17, further comprising a period duration selection switch that sets the duration of the periodic time intervals.

19 (New) An internal vibrator device according to Claim 17, further comprising a reverse switch that reverses the direction of the electric motor when the electric motor is operating in the normal operating state.

20. (New) An internal vibrator device, comprising:

- an electric motor,
- a vibrator housing,
- an imbalance device that is situated in the vibrator housing and that is driven to rotate by the electric motor,

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- main switch means for switching the electric motor on and off, the electric motor normally operating in a normal operating state to drive the imbalance device with a rotational characteristic compacting liquid concrete, and

- operating state change means for automatically reversing the direction of the electric motor at periodic time intervals to operate the internal vibrator device in a liberation operating state in which the rotational characteristic of the imbalance device differs from the rotational characteristic in the normal operating state.

21. (New) An internal vibrator device according to Claim 20, further comprising automatic operation switch means for switching the operating state change device off and on.

22. (New) An internal vibrator device according to Claim 20, further comprising reverse switch means for reversing the direction of the electric motor when the electric motor is operating in the normal operating state.